



THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20301

THE JOINT STAFF

MJCS-83-78
23 March 1978

MEMORANDUM FOR THE COMMANDANT, ARMED FORCES STAFF COLLEGE

Subject: Joint Command, Control, and Communications Staff
and Operations Course

1. Reference a memorandum from the Deputy Secretary of Defense, 30 January 1978, subject as above, which requested the Department of the Navy as Executive Agent, to establish a Joint Command, Control, and Communications (C3) Staff and Operations Course at the Armed Forces Staff College (AFSC), Norfolk, Virginia. The purpose of the course is to acquaint middle-grade officers (O-4 through O-6) and equivalent GS civilians with the current aspects of existing strategic and tactical C3 systems and procedures for command, management, and operations associated with joint military command centers and their supporting functions.
2. The Director of the Joint C3 Staff and Operations Course, under the Commandant, AFSC, with the assistance of the Joint Program Sponsor Group (JPSG) for C3 Education and Training is requested to develop a course syllabus clearly focused on the operations and procedures of current joint strategic and tactical C3 systems. The basic training objectives contained in the Appendix are being considered for syllabus development. It is requested that the first class convene in the second quarter, FY 1979. It is further requested that an appropriate plan of action and milestones together with the curriculum concept be prepared for briefing to and approval by the JPSG during October 1978.
3. The Department of the Navy, as Executive Agent for AFSC, will be responsible for programming, budgeting, and financing all expenses incident to this training course and for providing civilian staff support.

4. The following Joint C3 Staff and Operations Course billets are authorized for implementation of the course. Prior to selection of replacement instructors, it is recommended that the Commandant, AFSC, review the specialty/experience criteria and recommend adjustments, where appropriate, based on experience gained in teaching the course.

a. US Navy.

Director, Joint C3 Staff and Operations Course.

Grade 06, code 5090S, additional code 1000.

Qualifications - Fleet operational experience in C3 related billet and significant joint, fleet commanders in chief or Washington headquarters tour in WWMCCS or Joint Tactical C3 System associated billet.

Instructor, Strategic and Tactical Communications Systems

Grade 04/05, code 5080S additional code 1000.

Qualifications - Fleet tactical communications experience and joint fleet commanders in chief, or Washington headquarters tour in communications associated billet.

b. US Army.

Instructor, Strategic and Tactical Communications Systems.

Grade 04/05, code 25, 26, 27.

Qualifications - Previous experience in tactical and strategic communications.

Instructor, WWMCCS ADP Systems.

Grade 04/05, code 53 with joint experience or 53/25, 53/26, 53/27.

Qualifications - ADP with joint experience, preferably NATO, or ADP with communications background.

c. US Air Force.

Instructor, Warning and Intelligence Systems.

Grade 04/05, AFSC 2016, additional AFSC's 80XX or 30XX or 18XX or 17XX.

Qualifications - Previous duty at NORAD COC or NMCC or CINCSAC Command Center or any unified or specified Command Center (in order of preference) plus experience in warning systems. May be rated or non-rated.

Instructor, Tactical Command and Control Systems.

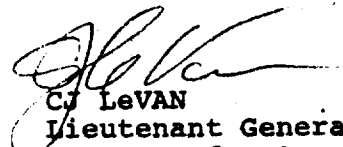
Grade 04/05, AFSC 1716, additional AFSC 3016.

Qualifications - Previous duty in a Tactical Air control System, preferably European, is mandatory; duty in joint tactical C3 activities is desirable. May be rated or non-rated.

d. Nominations of candidates to fill the above billets will be provided to Commandant, AFSC, no later than 10 April 1978, or sooner if possible. The Course Director and instructors will report to AFSC for duty in July 1978. It is requested that Commandant, AFSC, provide page changes to the FY 1979-1983 JTD as soon as possible to reflect the above additional manning in accordance with JCS MOP 173.

5. The Services and agencies identified in the Appendix as Offices of Primary Responsibility (OPR) will assist, as appropriate, throughout syllabus development and in briefing the newly reporting instructional staff. In view of the first class convening date and the time required to assemble the instructional staff, it is considered prudent to begin assembling appropriate material to support syllabus development as soon as possible. To facilitate specific and concise tasking of this near term phase of OPR support, it is requested that Commandant, AFSC, provide suitable guidance or format as required that will enable the development of only the most immediately useful information for the newly reporting instructional staff pending their determination of more detailed subsequent support requirements.

For the Joint Chiefs of Staff:


CJ LeVAN
Lieutenant General, USA
Director for Operations

Attachment
a/s

TRAINING OBJECTIVES

Joint C³ Training Objectives

The graduates of this course should have a broad understanding of the Worldwide Military Command and Control System (WWMCCS), its composition, its concept of operation, and its interrelationships with other command, control and communication systems. Due to the diversity of possible assignments and the existence of specialized site training programs, the graduates of this course should be sufficiently trained so that they can explain the relationship of basic facts and state general principles about each of the subject areas that follow. Office of Primary Responsibility (OPR) and estimated hours/% of total course hours, shown in brackets. One day equals 6 1/2 classroom hours.

Command and Control Procedures

(OPR: JCS/J-32. 32 hours/15%)

- Understand the Executive aids that are a part of WWMCCS; related documents, procedures, reporting structure and combined systems interactions which provide the means to access and input data into the WWMCCS and receive outputs in the form of records, reports, and/or displays.
- Receive a broad overview of "WWMCCS Composition" (JCS Pub 19 Vol 5) and "WWMCCS Concept of Operations" (JCS Pub 19 Vol 2).
- Can explain the JOPS procedures, including the nodes of the Unified and Specified Commands, the JCS, the Services, and the Transportation Operating Agencies; and is familiar with the information available from the ADP systems supporting and reporting force planning and deployment.
- Be knowledgeable of the five reports comprising the Commanders' Operational Report (OPREP) System which provides all echelons of command with essential information concerning the planning initiation, termination and results of military operations.
- Can describe the National Security Council system, and understands the policy making and execution process, to include the roles of and relationships among the President, the Secretary of Defense, the JCS, the Services, Congress, the other executive departments, and each of the Unified and Specified Commands.
- Receive a broad overview of the Crisis Action System procedures, the systems interfaces within the Joint Operational Planning System and its use by crisis participants.

Appendix

- Have knowledge of strategic and tactical nuclear operations (SIOP and non-SIOP), and reporting systems related to these operations to include Standing Operating Procedures for Coordinator of Atomic Operations (CAOSOP), Nuclear Weapons Report (NUREP), command-unique reporting requirements and JCS Emergency action procedures.
- Specific topics should include:
 - NCA (National Command Authorities) information requirements
 - Joint Reporting Structure
 - JOPS (Joint Operations Planning System)
 - FORSTAT (Force Status Reports)
 - OPREP (Operational Reports)
 - National decision-making process
 - Flexible response doctrine
 - Crisis action system
 - Selective release of nuclear weapons
 - Emergency actions
 - NATO decision-making process
 - OPSEC (Operations Security)

Facilities

[OPR: JCS/J-32. 13 hours/6%]

- Understand the functions of a primary command center, alternate and emergency relocation sites, and the relationships between command centers.
- Have an understanding of the mission and organization of the command centers which comprise the NMCS and general knowledge of the operational responsibilities and procedures of these command centers under normal (day-to-day) operations and throughout the spectrum of conflict.
- Have an understanding of the nature and types of information (readiness, deployment, location, etc.) required by the NMCS throughout the spectrum of conflict to include friendly forces operational information. The student should have a general understanding of the strategic warning systems and the interface between NMCS information requirements and intelligence information provided to the NMCS by the intelligence community.
- Be familiar with command and control facilities at unified, specified and other joint headquarters, communications and ADP support available and command unique procedures.

- Specific topics should include:
 - NMCS (National Military Command System)
 - NMCC (National Military Command Center)
 - ANMCC (Alternate NMCC)
 - NEACP (National Emergency Airborne Command Post)
 - Survivability
 - Primary Centers
 - Alternates
 - Ground
 - Airborne
 - Mobile/Transportable Facilities

Warning

(OPR: ASD(I). 19 hours/9%)

- Understand the composition of tactical warning systems which are a part of or provide support to WWMCCS and the interface with strategic systems.
 - Be knowledgeable of warning systems; system interaction; assessment of indicators provided by these systems and display capabilities.
 - Be familiar with those intelligence indicators which provide warning of imminent hostilities that would affect operations and the process assigning these indicators.
 - Specific topics should include:
 - Systems
 - BMEWS (Ballistic Missile Early Warning System)
 - SLBM D&W (Sea Launched Ballistic Missile Detection Warning)
 - ICBM detection
 - DEW (Distant Early Warning)
 - DOD Indications and Warning Systems
 - Strategic
 - Tactical
 - Attack characterization
 - Damage assessment
 - CCPDS (Command Center Processing and Display System)
 - Foreign Deception
 - Necessity for intelligence-operational information interfaces.

Data Collection and Processing

(OPR: JCS/J-32. 19 hours/9%)

- Understand the principles of data collection and handling to support information requirements which must be satisfied through the WWMCCS.

- Be familiar with the major applications systems used at the NMCC and the Unified and Specified Commands and explain the relationships among them.
- Can explain the capabilities of the current WWMCCS Intercomputer Network and can relate them to the operation of WWMCCS ADP systems.
- Be exposed to the characteristics of computers supporting command centers to include hardware, teleprocessing, types of data available and methods of retrieval, programming languages, computer system vulnerabilities and protection features.
- Acquaint the student with the various information C² system outputs which may be utilized on the Large Screen Display.
- Specific topics should include:
 - WWMCCS Standard Systems
 - Standard hardware
 - Standard system software
 - Standard applications software
 - PWIN (Prototype WWMCCS Intercomputer Network)
 - Computer security
 - Large screen displays
 - Teleprocessing
 - NIDS (NMCS Information and Display System)

Communications [Army, Navy, Air Force assist]
 [OPR: DCA. 39 hours/19%]

- Understand general purpose and special communications capabilities and basic techniques required to convey information, hold conferences, and issue orders within WWMCCS.
- Be familiar with existing and planned military and civilian communications systems, communications technology and reports concerning systems status which are available to support command and control functions.
- Be familiar with the Minimum Essential Emergency Communications Network (MEECN) and its concept of operations as outlined in Annex D, Volume II, JCS Pub 19; to include purpose, requirement for communications resources to support the system and headquarters involved in providing and receiving this support.

- Be familiar with the capabilities and the utilization of AUTODIN, AUTOVON and AUTOSEVOCOM especially as pertains to C² systems.
- Be familiar with JCS controlled contingency communications capabilities.
- Review lessons learned from communications support in recent past crises and be familiar with alternatives to extend communications capabilities to the on-scene commander.
- Introduce the student to the basic communications technologies, security systems (military, civilian, satellite, tactical) in use or proposed for use in fulfilling C² requirements.
- Specific topics should include:
 - Secure, non-secure
 - Record, data and voice
 - COMSEC (Communications Security)
 - JCSAN (JCS Alerting Network)
 - MEECN (Minimum Essential Emergency Communications Network)
 - EMATS (Emergency Message Automatic Transmission System)
 - DSCS, DCS (Defense Satellite Communications System, Defense Communications System)
 - AFSATCOM, FLTSATCOM (Air Force Satellite Communications Systems, Fleet Satellite Communications System)
 - SEAFARER (soft ELF)
 - ERCS (Emergency Rocket Communications System)
 - SATIN IV (SAC Automated Total Information Network)
 - SACCS (SAC Automated Command Control System)
 - Extensions to WWMCCS
 - Satellite, land based
 - ELF, VLF, LF, HF, VHF, UHF, SHF
 - Common user, dedicated
 - NATO communications systems

WWMCCS Interfaces

(OPR: JCS/J-32 and Air Force. 7 hours/3%)

- Be familiar with the information required by and available from both WWMCCS ADP systems (J-32) and actual or developmental tactical C² systems and can articulate the nature of desired interfaces. (AIR FORCE)
- Have knowledge of typical command and control systems used by particular CINCS; those which have been augmented

locally to expand capabilities; and C⁴ systems designed and developed unilaterally to satisfy various command's unique requirements.

- Specific topics should include:

Interfaces with:

- Intelligence
- Tactical C² systems
- NATO Community
- DOD Systems

WWMCCS Management

(OPR: as indicated below. 8 hours/4%)

- Specific topics should include:

- WWMCCS Council, WCSG (WWMCCS Council Support Group) [J-32]
- TCCP (Telecommunications and C² Program) [DTACCS]
- WWMCCS Architecture [DTACCS]
- Operational Requirements Processing [J-32]
- DTACCS
- J-32
- Army, Navy, Air Force, Marine Corps C³ structure
- DCA (Defense Communications Agency)
- NSA
- DIA
- WSEO (WWMCCS System Engineering Organization) [J-32/DTACCS]
- WWMCCS Related Architectures (e.g.: MILSATCOM etc) [DCA]
- WWMCCS ADP Program

Tactical C² Systems [Army, Navy assist]

(OPR: Air Force. 7 hours/3%)

- Be familiar with the broad functional capabilities of tactical C² systems. Understand the interoperability of these systems with emphasis on the degree to which interoperability has been achieved and future inter-facing plans.
- Be familiar with the various interfaces and relationships which exist between WWMCCS/Tactical C² Systems such as TOS (U.S. Army), TACS (U.S. Air Force), and NTDS (U.S. Navy) and SHAPE, NATO, other treaty organizations and friendly foreign nations.
- Specific topics should include:
 - Joint interoperability program for tactical C² systems in support of GAMO (Ground and Amphibious Military Operations) [Army/AF]
 - TACS/TADS (Tactical Air Control System/Tactical Air Defense System) [Navy/AF]

- TRI-TAC [Army]
- AWACS (Airborne Warning and Control System) [Air Force]
- NATO Systems [DTACCS]
- Related Architectures
- JTIDS (Joint Tactical Information & Display Systems) [Air Force]

Intelligence Support Systems

(OPR: ASD(I)/NSA and DIA assist. 6 hours/3%)

- Be familiar with the capabilities and limitations of sources, information channels, time sensitivity and perishability of intelligence data and the fusion of all source intelligence information into a comprehensive intelligence product and its integration with operational information to provide a composite picture.
- Specific topics should include:
 - NMIC (National Military Intelligence Center)
 - SIGINT (Signals Intelligence)
 - NSOC (National SIGINT Ops Center)
 - PHOTINT (Photographic Intelligence)
 - IDHS (Intelligence Data Handling System)
 - Operations-Intelligence fusion
 - HUMINT (Human Intelligence)
 - Intelligence Reporting

C³ References

(OPR: JCS/J-32. 6 hours/3%)

- These specific topics should be integrated into previously listed subject areas.
 - JCS Pub. 19 (WOMP) (WWMCCS Objectives and Management Plan)
 - JCS Pub. 17 (ADP) Management of Standard ADP
 - JCS Pub. 14 (ADP) Standard Software
 - JCS Pub. 7 (ADP) System Standards
 - JCS Pub. 6 (JRS) Joint Reporting Structure
 - JCS Pub. 1 (Dictionary)
 - WWMCCS Architecture documents
 - Appropriate portions of JSPS (Joint Strategic Planning System)
 - Annex D, JSOP (Joint Strategic Ops Plan)
 - Annex E, JSOP
 - JRDOD (Joint R&D Objectives Document)
 - JSCP (Joint Strategic Capabilities Plan)
 - DIPP (Defense Intelligence Projections for Planning)
 - DG (Defense Guidance)
 - PPGM (Planning and Programming Guidance Memorandum)

- Posture Statements
 - SecDef
 - CJCS
- CINC Master Plans
- Service/Agency Summary Plans

Other

(OPR as indicated below. 25 hours/12%)

- Be knowledgeable of facility, material and personnel vulnerabilities to the blast, thermal, initial and residual radioactive effects of a nuclear detonation. [Defense Nuclear Agency] 3 hours
- Be familiar with the hostile threat, system vulnerabilities, compromising emanations, and electronic counter-countermeasures (ECCM). [NSA as part of visit]
- Be familiar with the "total system concept" which requires man's interaction with various machines to form a total functional system and to develop an appreciation for machine capabilities and limitations resulting in man's optimum use of hardware to accomplish his mission. [Navy] 3 hours
- Be familiar with the Joint Exercise Manual and the objectives and general conduct of joint and combined exercises. Receive an overview of performance evaluations, crisis review, and review of exercise results [J-32] 13 hours
- Administration. 6 hours

Visits

(OPR as indicated below. One week. (29 hours) 14%)

- Conduct visits for indoctrination and familiarization to the following facilities (student SI(TK) clearance required):
 - NMCC (or CINC Command Center) [Air Force] 1/2 day.
 - ANMCC (or CINC alternate command center [Army] 1 day.
 - NEACP (or CINC airborne command center) [Air Force] 1/2 day.
 - NSA (NSOC, DEFSMAC) 1 1/2 day
 - DIA (NMIC) 1/2 day.
 - CIA (NPIC) 1/2 day.
 - White House Situation Room 1/2 day. (if one of the above not available.)

TOTALS: 210 hours or 32 days at 6 1/2 hours per day